

ABSTRACT

To provide an apparatus for evaluating the deterioration condition of a catalyst of an internal combustion engine that can

5 improve the accuracy of an evaluation of the deterioration condition of a catalyst and can suppress a worsening of emissions. The apparatus forcedly sets the air/fuel ratio upstream of a catalyst provided in an exhaust system of an internal combustion engine at a rich condition or a lean condition on the basis of a detected value of a sub O₂ sensor

10 downstream of the catalyst in the internal combustion engine and evaluates the deterioration condition of the catalyst. The air/fuel ratio control is reversed so that the air/fuel ratio upstream of the catalyst becomes a lean condition or a rich condition when 'egasum' has reached a predetermined value Ga, 'egasum' being an integrated value

15 of an admitted air volume (an integration count of the amount of exhaust gas passing through the catalyst) in the period after the sub O₂ sensor outputs a detected value, which shows a rich condition or a lean condition, until the reversing of the output of the sub O₂ sensor.